

USSN: 10/025,742  
Art Unit: 2133  
Submission under 37 CFR 1.114 pursuant to Final Action mailed 07/14/2005

### Remarks

The applicants respectfully disagree with the Examiner's interpretation of Minami. The Examiner has cited *In re Hyatt* in support of the contention that the claims must be "given their broadest reasonable interpretation consistent with the specification". (emphasis added).

The applicants accept this as a statement of the law, but disagree with the Examiner's interpretation of this decision. In the applicant's respectful submission the Examiner has chosen to ignore the crucial phrase "consistent with the specification". As pointed out in the previous response, the applicant is entitled to be his own lexicographer. *In re Hill*, 73 USPQ 483. The inventor's definition and explanation and meaning of a word, as evidenced by the specification, controls the interpretation of that claim term". *Serrano v Telular Corp.* 42 USPQ2d 1583.

The situation in was *In re Hyatt* was very different from the one at hand. The claim limitation in at issue was "a device detector generating device condition signals". The applicant argued that the term "device detector" required the sensing of a defective or faulty panel, not simply the measurement of the illumination properties of a device. Clearly, that was requesting the court to read more into the limitation than was actually present. Unlike the present case, there was no express definition in the specification defining a "device detector" in such a manner.

In the present specification, in the paragraph commencing on page 12, line 3, the applicant clearly states, in giving his definition and explanation of the meaning of the term, that a "diagnostic cell" can be "any type of cell that can be distinguished from a customer cell". Thus, in accordance with the applicant's teaching a *diagnostic* cell, while inherently being capable of providing a *diagnostic* function must also be distinguished from a customer cell. In view of *Serrano v Telular Corp.*, the Examiner must give effect to the applicant's express definition as set forth in the specification. The Examiner can give the term the broadest reasonable interpretation consistent with this definition.

Claim 1 as previously on file *inter alia* called for the step of "inserting a diagnostic cell into an active data traffic stream". With regard to the expression "active data traffic stream", the heavy presumption is in favour of the ordinary meaning of claim language as understood by

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one of ordinary skill in the art. *Bell Atl. Network Serv. Inc v. Covad Comm. Group Inc.* 59 USPQ2d 1865.

It is clear in context to one of ordinary skill in the art that the active data traffic stream consists of the normal customer data traffic into which the diagnostic cells (inherently special) are inserted. The diagnostic cells must be distinguishable from the active data traffic. Claim 1 also includes the feature of providing a first counter module recognizing when a diagnostic cell passes.

It is incomprehensible to the applicant how under any interpretation, even far-fetched one, adjusting the parity of a SONET frame, can be regarded as inserted a "diagnostic cell" into a stream of traffic. A SONET frame is not a cell. A SONET frame is a structure consisting of 9 rows of 90 octets transmitted every 125  $\mu$ sec and used as a transport vehicle to carry cells over a synchronous transmission medium in much the same way as an ordinary synchronous frame carries data over a T1 line. The parity is provided by adjusting a single bit of the frame so that the overall parity is odd or even. A SONET frame is not considered a cell, but apart from that Minami adjusts the parity of all cells passing through the system, so he cannot be considered as disclosing the insertion of distinct diagnostic cells into an active data traffic stream.

However, in order to better clarify the subject matter of the invention, and also to include the embodiment where the datapath is dedicated to the diagnostic cells (see page 15, line 8) the claims have been amended, in particular to include the feature that the diagnostic cells are tracked with a plurality of counters located downstream of the insertion point, and an analysis of the counters is performed to identify where on the datapath a fault has occurred.

The invention offers an economic and practical solution to finding the location of a fault in a communications network. Special diagnostic cells, which are distinct from customer cells, are inserted into a datapath, and the passage of these cells is tracked with the cell match counters as they move along the datapath. In the event of a fault, the precise location of the fault can be determined by examining the cell match counters. The fault must lie between the last counter to track the passage and the first counter not to detect passage of a diagnostic

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cell. When inserted diagnostic cells do not arrive at an extraction point, it is a simple matter to work back upstream to find the first counter not to detect the cells, and thereby identify the location of the fault. This method is not disclosed in the prior art, and especially not in Minami, which does not disclose tracking diagnostic cells at a plurality of counters in the manner claimed, notwithstanding the fact that the applicants find the Examiner's suggestion that SONET frames with a given parity could somehow constitute "diagnostic cells" untenable when the expression is interpreted in a manner which is consistent with the specification.

Independent claims 1, 7, and 15 contain these features. New claims 21 to 27, directed to various embodiments described, have been added as dependent claims. No new matter has been added. The total number of claims presented has not been exceeded, so excess claims fees are due.

The title has been amended to reflect the fact that loop-back is only one implementation of the invention. As apparent, for example, from Figure 4a, the invention can also be implemented in a straight-through path.

Allowance and reconsideration are therefore earnestly solicited.

Respectfully submitted,



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